



TP Series

Maximum flow proportional solenoid valve

FEATURES

- 2-way normally closed valve
- Highest flow capacity in class, up to 500 slpm
- Wide controllable range and tight control under varying inlet pressures
- High inlet pressure capable (100 psi); inlet and outlet pressure balanced
- Low power, low heat generation
- Proven performance tested to 100 million cycles
- Small size and light weight
- RoHS compliant
- PRO services



MEDIA COMPATIBILITY

Air, argon, carbon dioxide, heliox, hydrogen, nitrogen, oxygen & others

WETTED MATERIALS

Body:

C36000 brass

Others:

FKM, 300 series stainless steel

ELECTRICAL

Power	
Steady state	0.6 W
Cycling 15 Hz	1.2 W
Supply voltage	12 V _{DC} (-5% +10%)
Control voltage	0 to 10 V _{DC}

PHYSICAL PROPERTIES

Operating environment	0 to 55 °C
Storage temperature	-40 to 70 °C
Porting	Manifold mount, 1/8 NPT manifold (optional)
Weight	47 g (0.104 lbs)
Filtration (customer supplied)	40 µm
Oxygen clean	



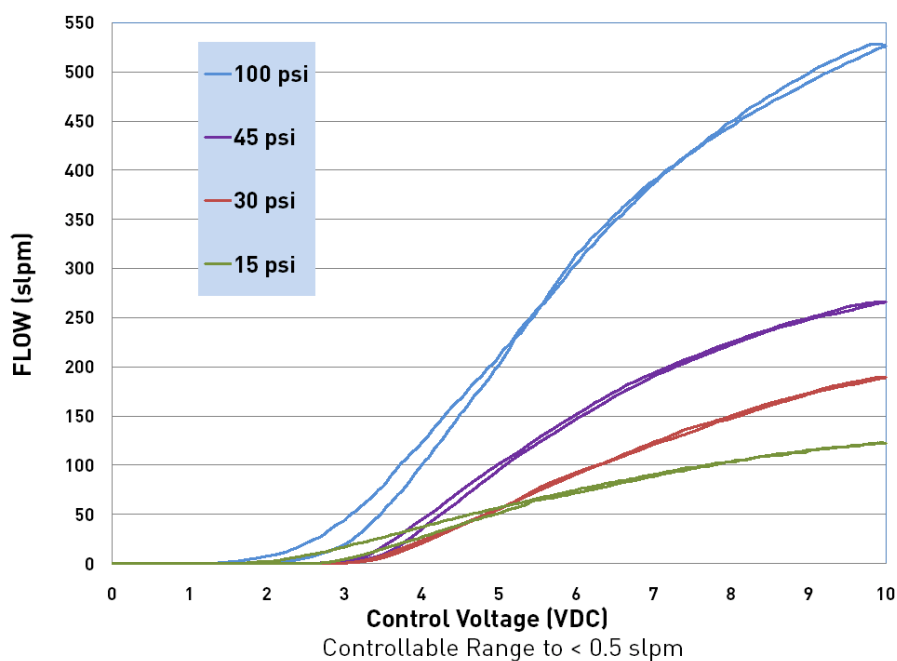
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PERFORMANCE CHARACTERISTICS

Part no.	Pressure		Orifice size	Leak rate ¹		Hysteresis
	Operating	Proof		Internal	External	
TP...	-10...100 psig	150 psig	0.128" (3.25 mm)	<5 sccm air at 100 psig	<1 sccm air at 100 psig	typ. 3 %, (max. 7 %)³

FLOW CURVES (typical air flow at 20 °C)²



Notes:

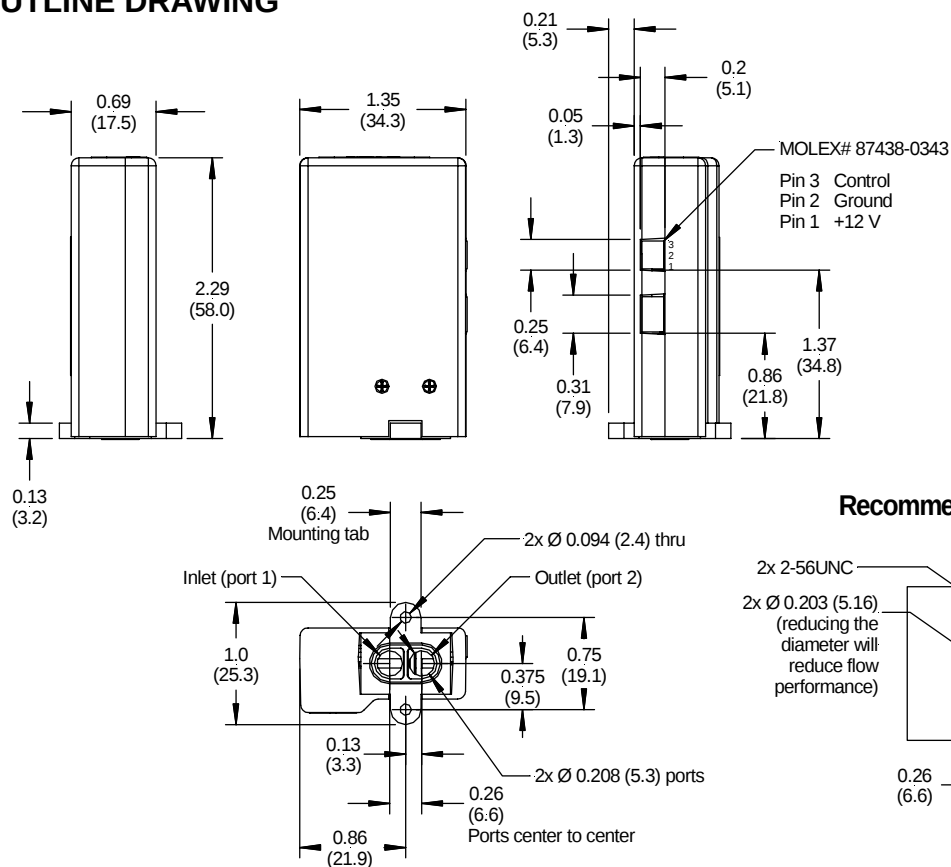
1. sccm denotes Standard Cubic Centimeters per Minute. It is a unit for the flow rate at standard conditions of temperature and pressure. 1000 sccm = 1 slpm.
2. slpm denotes Standard Liters per Minute. It is a unit for the flow rate at standard conditions of temperature and pressure. 1 slpm = 1000 sccm.
3. Under worst case performance conditions over the life of the product.



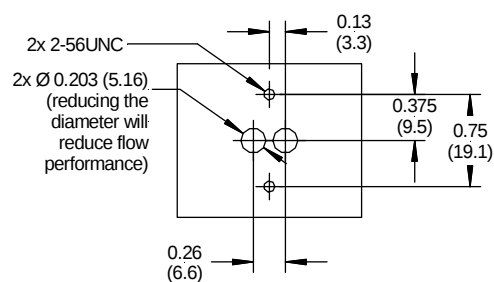
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OUTLINE DRAWING

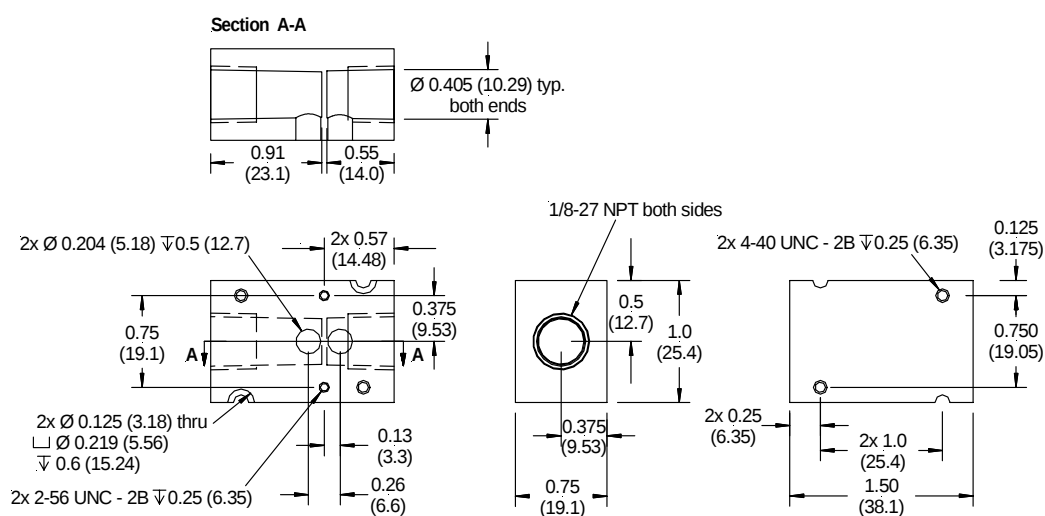


Recommended manifold detail



dimensions in inches (mm)

Manifold mount (optional)



dimensions in inches (mm)



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ORDERING INFORMATION

Options	Series	Pressure		Function		Orifice		Elastomer		Coil selection		Electrical interface		Pneumatic interface	
	TP	P100	100 psi	C	NC	128	0.128 inch	V	Viton (FKM)	120	12 V _{DC}	M	Molex connector	0	Manifold mount
Example: TP P100 C 128 V 120 M 0															

Accessories (please order separately using the following order numbers)

Order No.	Description
191-000112-405 (<i>free of charge</i>)	Mounting screws (<i>two per valve</i>)
890-001046-001 (<i>free of charge</i>)	Manifold gasket, FKM (<i>one per valve</i>)
890-001051-001 (<i>extra charge</i>)	Single station manifold, 1/8 NPT
590-000095-001 (<i>extra charge</i>)	Test lead connector, 9 inch

PRO services:

- Extended warranty period of 2 years
- Advanced logistics models for supply inventory and short delivery times
- Technical support through application engineers on the phone or at your site
- Fastest possible technical response for design and QA engineers
- ... plus other services on request

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